

AMENDMENTS TO THE CLAIMS

1-9. (Canceled)

10. (Currently amended) A stent delivery system, comprising:

an elongated catheter having a proximal and distal end portion and an expandable member disposed along the distal end portion of the elongated catheter, said expandable member being coupled to an expansion actuator;

a stent which is adjustable between a first collapsed diameter and at least a second expanded diameter, comprising a tubular member having a length and a diameter, and comprising a series of structurally separate sliding and locking circumferential elements, comprising at least one elongated rib disposed between first and second transverse end portions, and at least one articulating mechanism which permits one-way sliding of the circumferential elements from the first collapsed diameter to the second expanded diameter but inhibits radial recoil from the second expanded diameter, wherein said stent is disposed in its collapsed state over the expandable member on the elongated catheter; and

a degradable polymeric coating selected from a group consisting of polyvinyl pyrrolidone, polyethylene glycol, polyethylene oxide, polyethylene acetate, polyvinyl alcohol, polyacrylic acid, polymethacrylic acid, polyacrylamide, hydrophilic soft segment urethane, gum Arabic, gum tragacanth, or any combination thereof, wherein said polymeric coating holds said stent on said expandable member.

11. (Previously presented) The stent delivery system of claim 10, where said coating further comprises a compound selected from the group consisting of antithrombotics, anticoagulants, antimitogens, antimitotoxins, antisense oligonucleotides, gene therapy vehicles, nitric oxide, growth factors and inhibitors, hirudin, hirugen, hirulog, D-Pro-Phe-Arg chloromethyl ketone (PPACK), D-phenylalanyl-L-prolyl-L-arginyl chloromethyl ketone (FPRCH2Cl), heparin, C6-ceramide and warfarin.

12. (Canceled).

13. (Currently amended) The stent delivery system of claim 10 ~~12~~, wherein the ~~radial~~ circumferential elements alternate between ~~radial~~ circumferential elements having an odd number of elongated ribs and ~~radial~~ circumferential elements having an even number of elongated ribs.

14. (Currently amended) The stent delivery system of claim 13, wherein the ~~radial~~ circumferential elements alternate between ~~radial~~ circumferential elements having one elongated rib and ~~radial~~ circumferential elements having two elongated ribs.

15. (Currently amended) A stent delivery system, comprising:

an elongated catheter having a proximal and distal end portion and an expandable member disposed along the distal end portion of the elongated catheter, said expandable member being coupled to an expansion actuator;

a stent which is adjustable between a first collapsed diameter and at least a second expanded diameter, comprising a tubular member having a length and a diameter, a diameter, and a circumference, and comprising a series of sliding and locking circumferential elements, comprising at least one elongated rib disposed between first and second transverse end portions, wherein each circumferential element is structurally separate from the other radial elements in the series and forms only a fraction of the circumference of the tubular member, and at least one articulating mechanism which permits one-way sliding of the circumferential elements from the first collapsed diameter to the second expanded diameter but inhibits radial recoil from the second expanded diameter, wherein said stent is disposed in its collapsed state over the expandable member on the elongated catheter; and

a degradable polymeric coating selected from a group consisting of polyvinyl pyrrolidone, polyethylene glycol, polyethylene oxide, polyethylene acetate, polyvinyl alcohol, polyacrylic acid, polymethacrylic acid, polyacrylamide, hydrophilic soft segment urethane, gum Arabic, gum

Appl. No. : 10/017,341
Filed : December 12, 2001

tragacanth, or any combination thereof, wherein said polymeric coating holds said stent on said expandable member.

16. **(Previously presented)** The stent delivery system of claim 15, where said coating further comprises a compound selected from the group consisting of antithrombotics, anticoagulants, antimitogens, antimitotoxins, antisense oligonucleotides, gene therapy vehicles, nitric oxide, growth factors and inhibitors, hirudin, hirugen, hirulog, D-Pro-Phe-Arg chloromethyl ketone (PPACK), D-phenylalanyl-L-prolyl-L-arginyl chloromethyl ketone (FPRCH₂Cl), heparin, C6-ceramide and warfarin.

17. **(Canceled).**

18. **(Currently amended)** The stent delivery system of claim 15, wherein the ~~radial~~ circumferential elements alternate between ~~radial~~ circumferential elements having an odd number of elongated ribs and ~~radial~~ circumferential elements having an even number of elongated ribs.

19. **(Currently Amended)** The stent delivery system of claim 18 15, wherein the ~~radial~~ circumferential elements alternate between radial elements having one elongated rib and ~~radial~~ circumferential elements having two elongated ribs.

20. **(New)** The stent delivery system of Claim 1 wherein the stent further comprises a frame element that surrounds at least one circumferential element.

21. **(New)** The stent delivery system of Claim 15 wherein the stent further comprises a frame element that surrounds at least one circumferential element.